



[1] **EC-TYPE EXAMINATION CERTIFICATE**

according to Directive 94/9/EC, Annex III

(Translation)

[2] Equipment and Protective Systems intended for use in Potentially Explosive Atmospheres, **Directive 94/9/EC**

[3] EC-Type Examination Certificate Number: **IBExU10ATEX1089**

[4] Equipment: **Conductive electrodes**
Type E-../HE-..

Float switch
Type S-../QFS-..

[5] Manufacturer: E.L.B.-Füllstandsgeräte Bundschuh GmbH + Co

[6] Address: An der Hartbrücke 6
64625 Bensheim
GERMANY

[7] The design of the equipment mentioned in [4] and any acceptable variations thereto are specified in the schedule to this EC-Type Examination Certificate.

[8] IBExU Institut für Sicherheitstechnik GmbH, NOTIFIED BODY number 0637 in accordance with article 9 of the directive 94/9/EC of the European Parliament and the Council of 23 March 1994, certifies that the equipment mentioned in [4] has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment intended for use in potentially explosive atmospheres given in Annex II to the Directive.
The test results are recorded in the test report IB-10-3-213 of 7 July 2010.

[9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with EN 60079-0:2006 and EN 60079-11:2007.

[10] If the sign „X“ is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in [17] in the schedule to this certificate.

[11] This EC-Type Examination Certificate relates only to the design and construction of the specified equipment. If applicable, further requirements of this directive apply to the manufacture and supply of this equipment.

[12] The marking of the equipment mentioned in [4] shall include the following:

 **II 2G Ex ib IIB T4**
-20 °C ≤ T_a ≤ +60 °C

IBExU Institut für Sicherheitstechnik GmbH
Fuchsmühlenweg 7 - 09599 Freiberg, Germany
☎ +49 (0)3731 3805-0 - 📠 +49 (0)3731 23650

Authorised for certifications
-Explosion protection-

By order

Wagner

(Dr. Wagner)



- Seal -
(ID no. 0637)

Freiberg, 7 July 2010

Certificates without signature and seal are not valid. Certificates may only be duplicated completely and unchanged. In case of dispute, the German text shall prevail.

Schedule

[13] **Schedule**

[14] **to the EC-Type Examination Certificate IBExU10ATEX1089**

[15] **Description of equipment**

The conductive electrodes and float switches are simple electrical apparatus and are used as level probes in intrinsically safe circuits. The electric connection is carried out via terminals.

Technical data

Ambient temperature range

-20 °C to +60 °C

Supply circuit

for connection to an intrinsically safe circuit
In type of protection Ex ib IIB

$U_i \leq 30 \text{ V}$

$I_i \leq 200 \text{ mA}$

L_i, C_i negligibly low

plus line inductances/capacities
1 $\mu\text{H/m}$ and 100 pF/m , if available

[16] **Test report**

The test results are recorded in the test report IB-10-3-213. The test documents are part of the test report and are listed there.

Summary of the test results:

The conductive electrodes and float switches fulfil the requirements of explosion protection for equipment of Group II and Category 2G for Explosion Group IIB in type of protection Intrinsic Safety.

[17] **Special conditions for safe use**

none

[18] **Essential Health and Safety Requirements**

Confirmed by compliance with standards (see [9]).

By order

Freiberg, 7 July 2010



(Dr. Wagner)

- [1] **1st Addition to**
EC-TYPE EXAMINATION CERTIFICATE IBExU10ATEX1089
according to Directive 94/9/EC, Annex III
(Translation)




- [2] Equipment: **Conductive electrodes**
a) until now Type E../HE..
b) new Type E../HE..
Float switch
Type S../QFS-..
- [3] Manufacturer: a) until now E.L.B.-Füllstandsgeräte Bundschuh GmbH + Co
b) new E.L.B.-Füllstandsgeräte Bundschuh GmbH & Co. KG
- [4] Address: An der Hartbrücke 6
64625 Bensheim
GERMANY

- [5] **Addition/Modification**
The type designation of the conductive electrodes has changed according to [2] b). The equipment mentioned in [2] fulfils also the requirements of the current standards and can be marked as specified in [7]. The manufacturer has changed according to [4] b).

- [6] **Test report**
The proof of the explosion protection of the equipment mentioned in [2] is documented in the test report IB-12-3-297 of 11 December 2012. The test documents are part of the test report and are listed there.

- [7] **Test result**
IBExU certifies that the equipment mentioned in [2] has been found to comply with the Essential Health and Safety Requirements given in the Directive 94/9/EC by compliance with EN 60079-0:2009 and EN 60079-11:2012.

The equipment mentioned in [2] fulfils the requirements of the explosion protection of the Equipment Group II, Category 2G in type of protection intrinsic safety.
The marking shall include the following:

 II 2G Ex ib IIB T4 Gb
-20 °C ≤ T_a ≤ +60 °C

This addition is only valid in combination with the EC-Type Examination Certificate IBExU10ATEX1089 of 7 July 2010.

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Fuchsmühlenweg 7 - 09599 Freiberg, Germany
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Freiberg, 11 December 2012

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